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**READYPV**

Reliability Evaluation through Analytics  
and Data for emerging technology in Photovoltaics

## DELIVERABLE 2.3

### Ready-PV User Access Guidelines

|                                       |                                                                                            |
|---------------------------------------|--------------------------------------------------------------------------------------------|
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1) R= Report, Document; O = Other 2) PU= Public; SEN = Sensitive/Confidential/Restricted

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## 1. Executive summary

### 1.1 *Description of the deliverable content and objectives*

This deliverable, **D2.3 – Ready-PV User Guidelines**, provides the comprehensive, publicly available reference document through which researchers and industry professionals can understand, plan, and carry out access to the Ready-PV research infrastructure network. The content of this report forms the basis of the **User Guidelines published on the Ready-PV project website** ([www.readypv.eu/procedure](http://www.readypv.eu/procedure)), ensuring that the same information is consistently available to all prospective users, whether consulted as a project deliverable or directly online.

Ready-PV brings together **18 partner organizations from 12 countries**, coordinated by Helmholtz-Zentrum Berlin für Materialien und Energie (HZB), offering open access to **43 physical and virtual research installations** dedicated to the reliability, stability, and degradation evaluation of emerging photovoltaic technologies. Access is provided through two complementary modalities — **Transnational Access (TA)**, for hands-on use of physical infrastructures, and **Virtual Access (VA)**, for remote use of digital tools, models, and data services — organized across **four infrastructure pillars**: fundamental characterization, indoor stability and reliability testing, outdoor performance and durability testing, and virtual infrastructures and digital services.

The guidelines set out the full user journey from first contact with the project through to completion of access, covering:

- **Eligibility criteria**, including the transnationality rule and its exceptions, the requirement to disseminate results, and specific provisions for industrial users and SMEs;
- **The application process**, from infrastructure scouting and selection through drafting a Scientific Case and Experimental Plan, to submission via the single-entry-point platform **READY-GATE**;
- **The evaluation procedure**, including the technical feasibility check and scientific peer review carried out by the Selection Panel, and the priority criteria applied in case of oversubscription;
- **Preparation, execution, and reporting**, describing what users can expect before, during, and after their access period, for both on-site and remote modalities;
- **User obligations**, including dissemination of results, FAIR data management, and acknowledgment of EU funding;
- **Support services and reference resources**, including infrastructure-specific contacts, training materials, and downloadable templates.

By consolidating this information into a single, structured, and publicly accessible document, this deliverable ensures **clarity, transparency, and equal opportunity** for all prospective users — regardless of their prior experience with transnational access schemes — and establishes User Guidelines as the authoritative reference throughout the project's 10 planned Calls for Proposals, running from October 2026 to March 2029.

## 2. User Guidelines for Ready-PV access

This guide reflects the Ready-PV access scheme as of 31 August 2026. **The content presented here corresponds to the User Guidelines published on the Ready-PV project website ([www.readypv.eu/procedure](http://www.readypv.eu/procedure))**, ensuring users have access to the same, consistent information whether consulting this deliverable or the website directly. Eligibility criteria, evaluation procedures, and reimbursement rates may be updated over the course of the project; the current version is always available on the Ready-PV website.

### 2.1 *Welcome to Ready-PV*

#### 2.1.1 What Ready-PV Is

Ready-PV — Reliability Evaluation Through Analytics and Data for Emerging Technology in Photovoltaics — is a 36-month project funded under the European Union's Horizon Europe programme (Grant Agreement No. 101293084, HORIZON-INFRA-2025-01 call), coordinated by Helmholtz-Zentrum Berlin für Materialien und Energie (HZB).

Ready-PV establishes a centralized, open access framework giving researchers equitable, efficient, and high-quality access to 43 advanced experimental and digital research installations across Europe and beyond, dedicated to studying the stability, reliability, and degradation of emerging photovoltaic technologies — including perovskite, tandem, and quantum-dot solar cells.

Access is offered through two modalities:

- Transnational Access (TA) — hands-on, on-site access to physical infrastructures
- Virtual Access (VA) — remote access to digital tools, models, and data services

The application and reporting process is the same for both modalities; the difference lies only in how access is implemented (see Section 2.2.4). VA does not involve travel and is therefore not eligible for travel reimbursement.

All access is coordinated through a single-entry point platform, READY-GATE, adapted from the proven VIPERLAB-GATE system used in the predecessor VIPERLAB project.

#### 2.1.2 Who Can Apply

Ready-PV is open to any curiosity-driven researcher, from academia or industry, anywhere in the world. This includes:

- Academic researchers and research groups, represented by a designated user group leader
- Industry professionals and companies of any size, applying either individually or jointly with academic partners
- SMEs, who may additionally use results generated through Ready-PV for proprietary (non-published) research, subject to the same technical feasibility check and scientific evaluation as all other proposals

Detailed eligibility criteria (transnationality and dissemination requirements) and priority considerations applied in case of oversubscription are described in Section 2.2.

### 2.1.3 Overview of the Consortium and the Four Infrastructure Pillars

Ready-PV brings together 18 partner organizations from 12 countries (Fig.2.1), coordinated by HZB (Germany), including leading research infrastructures, universities, and technology institutes across Europe, Switzerland, the UK, and Chile. The full list of consortium partners is provided in **Annex A**.

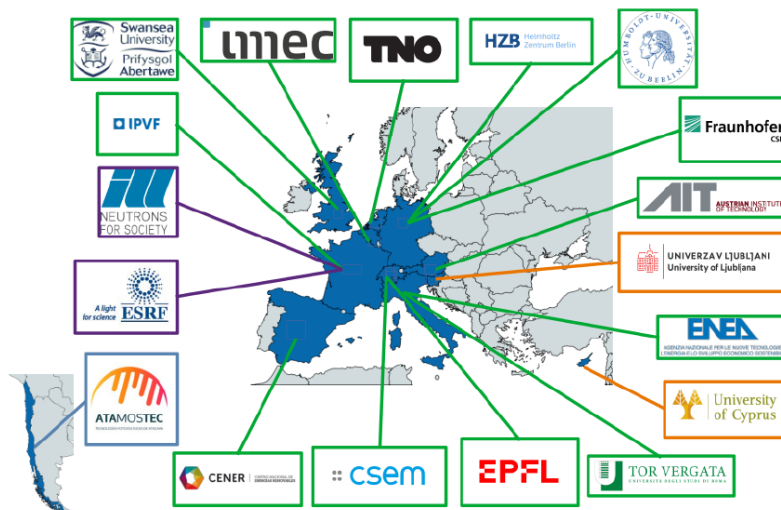


Figure 2.1 Ready-PV consortium.

The 43 installations offered through Ready-PV are organized into four infrastructure pillars:

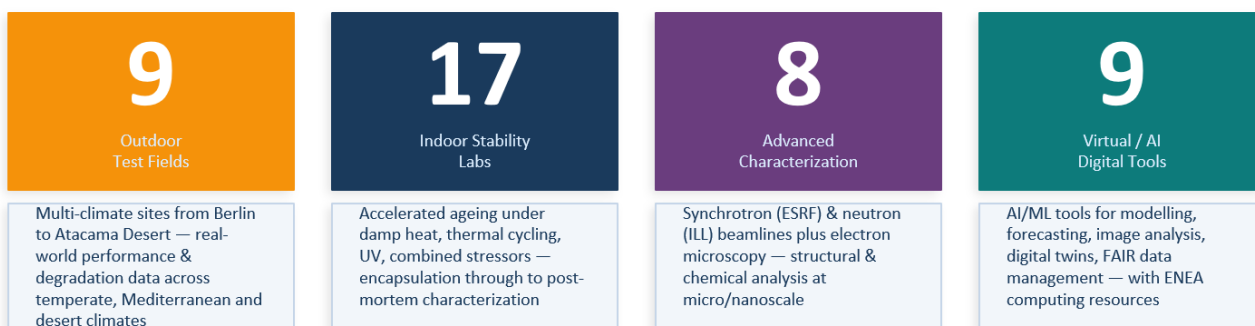


Figure 2.2 Ready-PV infrastructures grouped in 4 pillars.

Together, these pillars allow users to move seamlessly between physical testing and digital analysis — for example, characterizing samples after outdoor exposure or indoor accelerated aging, then applying AI-based tools to interpret degradation patterns.

The full Infrastructure Catalogue, listing all 43 installations by pillar with technical specifications and host institutions, is available on the [Ready-PV webpage](#) and overviewed in **Annex B**.

## 2.2 Eligibility Criteria

Before applying for Ready-PV access, users should check that they meet two criteria: transnationality and freedom to disseminate results. Additional provisions apply to industrial users and SMEs, and the two access modalities — Transnational Access (TA) and Virtual Access (VA) — differ only in how access is implemented, not in how eligibility is assessed. The diagram below gives an overview of the eligibility check; each criterion is explained in detail in the following subsections.

**Exceptions to the transnationality rule** apply on both sides: users that are themselves International Organizations, the JRC, or an ERIC may access any TA facility regardless of location, and facilities that are International Organizations — ESRF and ILL — may be accessed by any user regardless of their home country. See Section 2.2.1 for details. An exception to the dissemination requirement also applies to SME proprietary research — see Section 2.2.3.

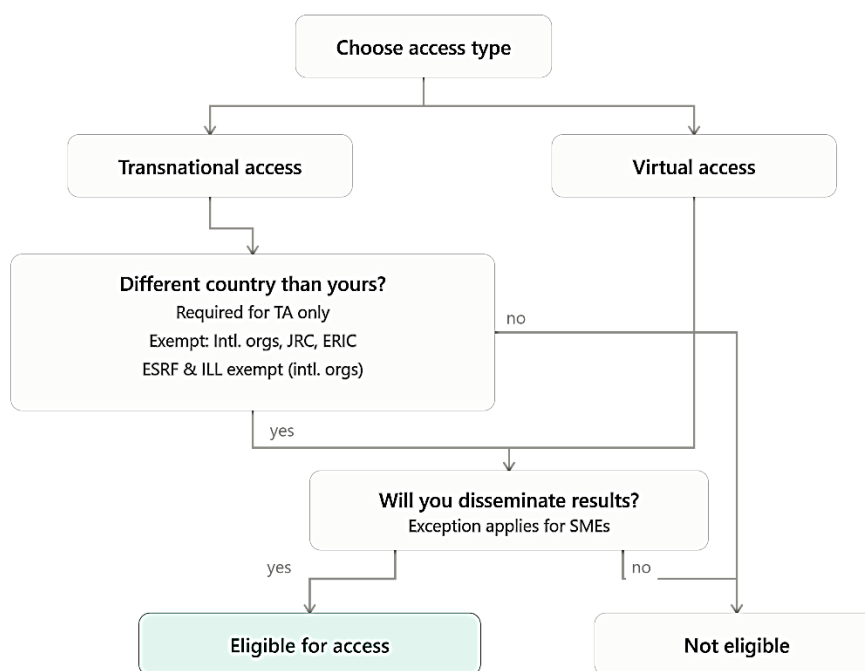


**Figure 2.3 Eligibility decision flow**

## 2.2.1 Transnationality

Transnational Access (TA) is generally subject to a transnationality requirement: the user group leader and the majority of the user group must be based in a country **other than** the one hosting the requested infrastructure.

Two exceptions apply:

- **Applicant is an International Organization, the JRC, or an ERIC:** such users are exempt from the transnationality rule and may apply for TA to **any** Ready-PV facility, regardless of their own location.
- **Host facility is an International Organization:** within Ready-PV, this applies to the **European Synchrotron Radiation Facility (ESRF)** and the **Institut Max von Laue – Paul Langevin (ILL)**, both intergovernmental research organizations rather than national infrastructures. Because these facilities are not "national," the transnationality rule does not apply to **any** user applying to them — including users based in the facility's host country, France.

An additional exception applies to remote access to installations located in a different country offering an equivalent type of service.

The transnationality criterion does **not** apply to Virtual Access (VA) at all, since VA does not require physical travel to a host facility.

## 2.2.2 Freedom to Disseminate Results

All Ready-PV users must agree to scientifically disseminate the results obtained through their access — for example through publications, conference presentations, or other public scientific outputs. This requirement ensures that the knowledge generated through Ready-PV infrastructure benefits the broader scientific community.

Access is provided free of charge on the condition that results are disseminated. An exception to this requirement applies to SME users conducting proprietary research (see Section 2.2.3).

Dissemination obligations — including how to acknowledge Ready-PV and EU funding — are described in more detail in Section 2.7 (User Obligations).

## 2.2.3 Industrial Users and SMEs

Industry professionals are welcome to apply for Ready-PV access, regardless of company size, either individually or as part of a larger user group (e.g., jointly with academic partners). As for all users, access is free of charge when results are disseminated.

SME users may alternatively use the results generated through Ready-PV access for proprietary research, without a requirement to publish. Proposals from SMEs undergo exactly the same technical feasibility check and scientific evaluation as all other Ready-PV proposals — there is no separate or lower evaluation standard.

## 2.2.4 Access Modalities: Transnational Access (TA) vs. Virtual Access (VA)

Ready-PV offers two access modalities:

- Transnational Access (TA): on-site, hands-on access to a physical infrastructure. Users typically visit the host facility for a defined period, working directly with instrument scientists.
- Virtual Access (VA): remote access to digital tools, AI/ML models, shared data repositories, and remote data analysis services, provided via remote login or API. No physical presence at a host facility is required.

Important: TA and VA differ only in *how* access is implemented. The application process, evaluation procedure, and reporting requirements are identical for both modalities (see Sections 2.3–2.6). The key practical differences are below.

Table 2.1 — Key differences between Transnational Access (TA) and Virtual Access (VA) in Ready-PV

|                                      | Transnational Access (TA)        | Virtual Access (VA)                             |
|--------------------------------------|----------------------------------|-------------------------------------------------|
| Physical presence required           | Yes                              | No                                              |
| Subject to transnationality rule     | Yes (with exceptions, see 2.2.1) | No                                              |
| Travel and subsistence reimbursement | Yes (eligible)                   | Not applicable                                  |
| Support provided by                  | Instrument scientist on-site     | Instrument scientist / remote technical support |

## 2.3 Apply for Access

This section describes the full application process, from identifying the right infrastructure to submitting a proposal via READY-GATE and understanding how it will be evaluated. The diagram below gives an overview of the full journey, from initial scouting support through to reporting after access; each stage is explained in detail in the following subsections.

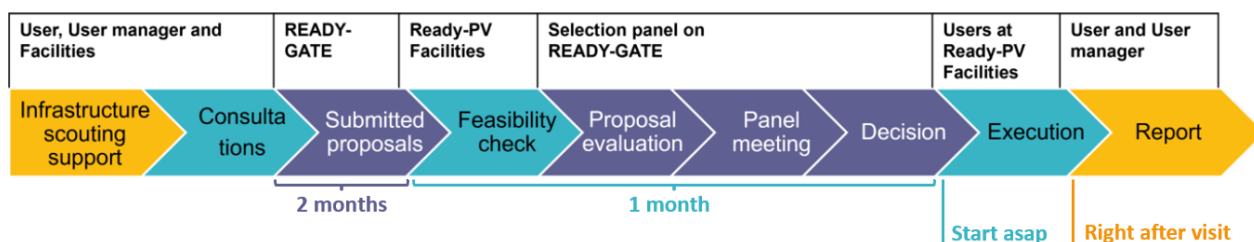


**Figure 2.4 — Ready-PV access process overview: from infrastructure scouting to reporting**

### 2.3.1 Infrastructure Scouting

Choosing the right facility from the Ready-PV catalogue with 43 different instruments isn't always straightforward, especially for users new to a particular pillar or technique. Ready-PV recommends an optional scouting step before submitting a proposal: users are encouraged to contact the Ready-PV support team, who can help match a research question to the most suitable installation(s) and advise on feasibility before a formal application is drafted.

This step is not mandatory but is strongly encouraged, particularly for first-time users or complex, multi-facility proposals.

### 2.3.2 Calls for Proposals

Ready-PV proposals are collected through periodic Calls for Proposals. Each call cycle follows a defined sequence of submission, evaluation, and implementation phases.

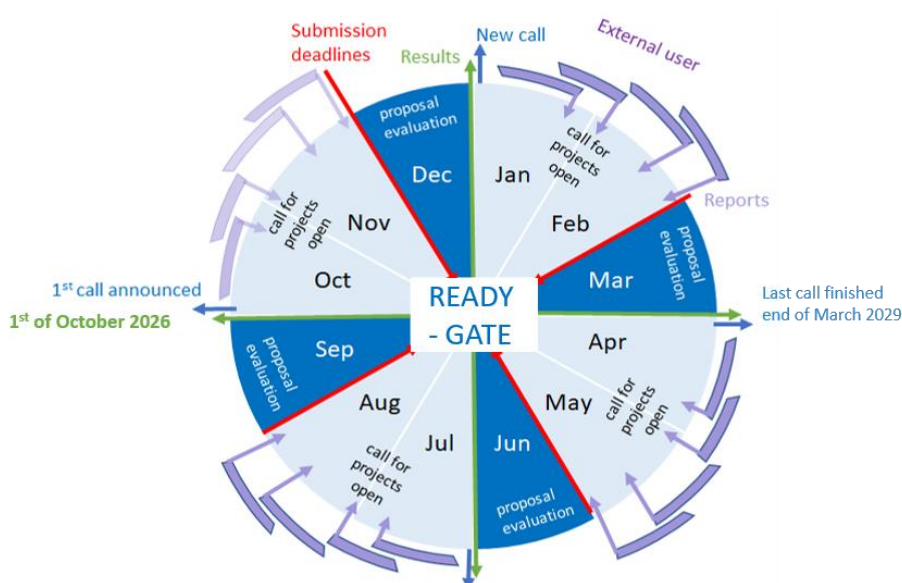


**Figure 2.5 — Calls for Proposals periodicity and process.**

Exact submission and evaluation dates for the current and upcoming calls are as follows:

| Call           | Submission window   | Evaluation period | Implementation start |
|----------------|---------------------|-------------------|----------------------|
| <b>Call 1</b>  | 1 Oct – 30 Nov 2026 | Dec 2026          | Jan 2027             |
| <b>Call 2</b>  | 1 Jan – 28 Feb 2027 | Mar 2027          | Apr 2027             |
| <b>Call 3</b>  | 1 Apr – 31 May 2027 | Jun 2027          | Jul 2027             |
| <b>Call 4</b>  | 1 Jul – 31 Aug 2027 | Sep 2027          | Oct 2027             |
| <b>Call 5</b>  | 1 Oct – 30 Nov 2027 | Dec 2027          | Jan 2028             |
| <b>Call 6</b>  | 1 Jan – 29 Feb 2028 | Mar 2028          | Apr 2028             |
| <b>Call 7</b>  | 1 Apr – 31 May 2028 | Jun 2028          | Jul 2028             |
| <b>Call 8</b>  | 1 Jul – 31 Aug 2028 | Sep 2028          | Oct 2028             |
| <b>Call 9</b>  | 1 Oct – 30 Nov 2028 | Dec 2028          | Jan 2029             |
| <b>Call 10</b> | 1 Jan – 28 Feb 2029 | Mar 2029          | Apr 2029             |

### 2.3.3 Drafting a Proposal (Scientific Case & Experimental Plan)

A Ready-PV proposal consists of two main documents:

- Scientific Case — a concise description of the research question, its relevance, and expected outcomes
- Experimental Plan — details of the samples, parameters, methods, and estimated time/resources needed at the requested infrastructure

Guidelines for both a Scientific Case and an Experimental Plan are provided in **Annex D**, to help applicants understand the expected level of detail and structure.

### 2.3.4 Submitting via Ready-PV GATE

All applications are submitted through READY-GATE, Ready-PV's single-entry-point access platform.

#### GATE (READY-PV)

GATE (READY-PV) is the access tool for READY-PV (REliability Evaluation through Analytics and Data for Emerging Technology in PhotoVoltaics).

All READY-PV users must be registered in GATE (READY-PV) in order to

- submit experiment time applications for READY-PV facilities
- be a co-proposer on a proposal

**Be aware!** Search the abbreviation of your selected instrument in this [LIST](#) and use it by READY-PV to submit your proposal for access. The complete Infrastructure Catalogue can be found [HERE](#).

**PLEASE NOTE**

ONLY proposals from countries other than the hosting one are eligible to access READY-PV, as we found TNA (transnational access) only.

In case of problems ask for [HELP](#) or take a look at the [USER MANUAL](#).

**HZB has implemented a 2FA (2 factor authentication). After login you will receive an email with a code. Please enter the code within 1 hour.**

Login

Username

Password

Login

New Users: [Registration](#)

[Register via HZB account](#)

**Figure 2.6 — READY-GATE homepage and user login**

The access to the READY-GATE, contact support and user manual for READY-Gate are available here:

<https://www.readypv.eu/readypv-gate/>.

To submit a proposal, users must:

1. Create a READY-GATE account (first-time users)
2. Accept the platform's terms and conditions
3. Complete the online submission form, including minimal personal data (first name, last name, nationality) and the user group composition
4. Select the target infrastructure(s) and preferred access modality (TA or VA) using the correct **GATE abbreviation** for the requested infrastructure as listed in the Infrastructure Catalogue (**Annex B**)
5. Upload the Scientific Case and Experimental Plan

**GATE (READY-PV)**

**Registration**

Please complete the following form to register for GATE (READY-PV). At the end there are several documents that have to be acknowledged. In most cases, acknowledgment is a prerequisite for a successful registration.

Fields marked with \* are required.

**Account**

Username \*

Password \*  (min. 6 characters, case sensitive)

Repeat password (login) \*

**Personal information**

Email \*

Title

Family name \*

Birth name

Given name \*

Please provide your complete name (including given name, second name(s) / middle name(s) and family name) as written in your passport / identity card. \*

This information is needed by both the A2E Registration Protection Officer and the PDS Security Officer.

Birthdate (Day, Month, Year) \*

Place of birth \*

Citizenship \*

Additional citizenship (if applicable)

Gender \* ☐ male ☐ female ☐ diverse

Status \*  Experienced researcher

Facilities of interest ☐ READY-PV

Please choose your scientific preference(s):

1.  Chemistry

2.

3.

**Affiliation (employer)**

Organisation/Institute \*  [Select/Search affiliation](#)

Department \*

Street

ZIP / City \*

ZIP / PO. Box

Country \*

Phone \*

Fax

**Infomail \***

I would like to receive information by email on call for proposals, call for reports, user meetings, ...

☐ yes ☐ no

**Acknowledgment \***

☐ Privacy Policy of GATE (READY-PV)

[register](#)

Figure 2.7 — READY-GATE registration form

## New proposal: READY-PV

**General proposal data**

**Title \***  
max. 500 characters

**Abstract \***  
max. 1000 characters

**Main research area \***  **Scientific category \***

**Funding** ☐ Funding requested

**Scientific case and results expected**

PDF file (maximum 1 pages) \*  [Durchsuchen...](#) Keine Datei ausgewählt.

[next step](#)

Figure 2.8 — READY-GATE proposal submission form

By submitting a proposal, users agree to provide accurate and complete information throughout the application, evaluation, access, and reporting process. Only minimal personal data is collected (first name, last name, and nationality), used solely for eligibility verification, access management, and project reporting purposes.

Link to READY-GATE data protection / privacy notice:

<https://www.helmholtz-berlin.de/pubbin/hzbgate?NJOB=UDOCPDF&dvid=5&MID=4>

### 2.3.5 Proposal Evaluation Procedure

Once submitted, proposals go through a two-stage evaluation:

1. Technical Feasibility Check — carried out by the instrument scientists at the host infrastructure, confirming the proposed experiment is technically achievable within the facility's capabilities
2. Peer Review by the Selection Panel — carried out by independent experts who assess the scientific merit of the proposal. The full list of Selection Panel experts is published on the Ready-PV website: <https://www.readypv.eu/Dissemination-Download/Public%20Reports>.

**Selection Panel experts sign a Non-Disclosure Agreement prior to evaluation and are never assigned a proposal where a potential conflict of interest exists** — for example, a professional, personal, or institutional connection to the applicant. This ensures both the confidentiality and the impartiality of every review.

Peer reviewers assess proposals using a structured evaluation scheme within READY-GATE, ensuring a consistent and transparent grading process across all applications.

|                                                                                                                                                                        |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Proposal name                                                                                                                                                          |                       |
| Referee                                                                                                                                                                |                       |
| Criteria                                                                                                                                                               | Grades Score Comments |
| Scientific merit                                                                                                                                                       |                       |
| Experiment design                                                                                                                                                      |                       |
| Capability/record of proposer                                                                                                                                          |                       |
| Choice of instrument, including whether VIPERLAB infrastructure is needed to perform the experiment or if it can better or more easily be answered using other methods |                       |
| “Reasonableness” of the amount of time requested                                                                                                                       |                       |

| Grades     | Score | Explanation                                                                                                             |
|------------|-------|-------------------------------------------------------------------------------------------------------------------------|
| A+         | 9     | Highest priority - should be done.                                                                                      |
| A          | 8     |                                                                                                                         |
| A-         | 7     |                                                                                                                         |
| B+         | 6     | No or minor objections, can be done if experiment time is available.<br>If minor objections, please specify in comment. |
| B          | 5     |                                                                                                                         |
| B-         | 4     |                                                                                                                         |
| C+         | 3     | Major objections, should only be done under restrictions.<br>Please specify your objections in the comment.             |
| C          | 2     |                                                                                                                         |
| C-         | 1     |                                                                                                                         |
| Reject     | 0     | Reject                                                                                                                  |
| No comment | - 1   | Use if you feel biased or unable to evaluate the proposal.<br>No comment. This ranking is not part of the final score.  |

**Figure 2.5 READY-GATE evaluation and grading scheme used by reviewers**

In case of oversubscription, priority is given according to criteria such as new users, users from countries lacking equivalent infrastructure, applicants from Widening countries, and underrepresented groups; up to 20% of access is reserved for non-EU users.

Applicants are notified of the outcome (approved, not feasible, or rejected) via READY-GATE, together with the feedback provided by the peer reviewers. Users whose proposals are rejected or waitlisted are encouraged to use this feedback to revise their proposal and resubmit it in a subsequent Call for Proposals.

## **2.4 Prepare for Access**

Once a proposal has been approved, this section covers what happens before access actually takes place — whether on-site (TA) or remote (VA).

### **2.4.1 Confirmation and Scheduling**

Following a positive evaluation outcome, users receive a confirmation of access via READY-GATE, including the approved scope of the experiment and an indicative timeframe for implementation. Access typically begins within a defined period after approval, in line with the current Call for Proposals cycle (see Section 2.3.3).

A specific date or access window is then agreed upon between the user and the host infrastructure, based on facility availability and the user's own schedule.

### **2.4.2 Coordinating with the Instrument Scientist / Local Point of Contact**

Each approved proposal is assigned an **instrument scientist** (or equivalent local point of contact) at the host infrastructure. This person is the user's main contact for:

- Finalizing experimental details and confirming feasibility of the agreed plan
- Practical arrangements (site access, equipment availability, sample requirements)
- Answering technical questions ahead of the access period

Users are encouraged to reach out to their assigned contact as early as possible after confirmation to ensure a smooth start.

Link to instrument scientist contact list: <https://www.helmholtz-berlin.de/media/media/user/GATE/ready-pv/list-abbreviations-in-gate.pdf>. See also **Annex C**.

### **2.4.3 Logistics, Travel, and Safety Preparation**

For **Transnational Access (TA)**, users should plan and arrange:

- Travel to the host institution
- Accommodation for the duration of the access period
- Any required visas or entry permits
- Compliance with the host facility's local safety, security, and access requirements (e.g., lab safety training, badges, radiation safety briefings where applicable)

Users should consult the host infrastructure's specific practical information (available via the Infrastructure Catalogue) ahead of travel.

Reimbursement of eligible travel and subsistence costs is addressed in Section 2.6.2, after the access has taken place.

#### 2.4.4 Preparing for Remote/Virtual Access

For **Virtual Access (VA)**, no travel is required. Preparation instead involves:

- Confirming remote access credentials (login, API keys, or equivalent) for the requested digital tool, dataset, or computing resource
- Verifying local technical requirements (software, connectivity, data formats) needed to make use of the service
- Agreeing on a remote working schedule with the assigned instrument scientist or digital service contact, where relevant

#### 2.4.5 Training and Preparatory Resources

Ahead of their access period, users can benefit from training and preparatory resources offered through Ready-PV, including:

- Infrastructure-specific webinars introducing a facility's capabilities and protocols
- Preparatory documentation and technical guides for specific installations or digital tools
- Direct guidance from the assigned instrument scientist

These resources are particularly useful for first-time users or those working with an infrastructure pillar for the first time. Link to training materials / webinar recordings on project webpage: <https://www.readypv.eu/Dissemination-Download/Training%20support>

### 2.5 During Access

This section describes what to expect while access is taking place, whether on-site (TA) or remote (VA).

#### 2.5.1 On-Site Duties and Conduct

During a Transnational Access (TA) visit, users are expected to:

- Follow the host institution's standard health, safety, and (where applicable) radiation-protection regulations, which apply equally to all researchers
- Work under the guidance of the assigned instrument scientist for the duration of the access period
- Respect the host facility's local rules regarding lab access, equipment uses, and conduct

Where personal circumstances limit a researcher's ability to work in certain on-site conditions (for example, exposure to toxic materials or radiation-controlled areas), Ready-PV's virtual and remote access options — including the possibility of sending samples for remote investigation — ensure research can still be completed safely. Users facing such constraints are encouraged to discuss alternatives with their instrument scientist or the Ready-PV support team.

#### 2.5.2 Remote Access Execution

During Virtual Access (VA), the experiment or analysis is carried out remotely, either:

- Directly by the user, via remote login, API access, or a shared digital platform, or
- By the instrument scientist on the user's behalf, following the approved Experimental Plan — for example, when working with samples shipped to the host facility for remote-supervised investigation

Users remain in contact with their assigned instrument scientist throughout the VA period to review progress, discuss intermediate results, and adjust the experimental plan if needed.

### 2.5.3 Technical and Training Support

Throughout the access period, users are supported by:

- Their assigned **instrument scientist**, who provides scientific guidance and technical assistance for the duration of the access
- **On-site training**, provided during TA visits to familiarize users with the facility's equipment and protocols
- **Online training**, provided by the instrument scientist for VA or remote access users

Further support channels, including how to get help if access is disrupted or if issues arise, are described in Section 2.8 (Support and Contacts).

## 2.6 After Access

This section describes what happens once an access period — TA or VA — has been completed.

### 2.6.1 Submitting Experimental Report

At the end of the access period, users are required to submit a **two-pages (minimum) experimental report** via READY-GATE summarizing the work carried out, the results obtained, and any relevant observations about the infrastructure or support received. This requirement is the same for both TA and VA users.

The experimental report contributes to Ready-PV's ongoing monitoring of access outcomes and helps the project demonstrate its scientific impact (see Section 2.7.1 on dissemination obligations).

**This report is an internal, administrative document submitted to Ready-PV for project monitoring purposes — it is not, by itself, a form of public dissemination.** It does not need to include proprietary data, confidential results, or commercially sensitive details; a concise, factual summary of the access (e.g., what was tested, what infrastructure/methods were used, and general feedback) is sufficient to fulfil this requirement. Users should exercise their own judgment regarding what level of technical detail is appropriate to share in this report, consistent with their own confidentiality needs.

The separate obligation to **disseminate scientific results** (Section 2.2.2) — through publications, conference contributions, or other public outputs — applies according to each user's eligibility category. **SME users conducting proprietary research are exempt from the dissemination requirement altogether** (Section 2.2.3) and may use the results of their access for internal or commercial purposes without any obligation to publish.

### 2.6.2 Travel and Subsistence Reimbursement

Users who completed **Transnational Access (TA)** are eligible for reimbursement of travel and subsistence costs, based on predefined flat rates:

| Cost item                     | Flat rate           |
|-------------------------------|---------------------|
| Travel                        | €600 per user visit |
| Accommodation                 | €150 per night      |
| Subsistence (daily allowance) | €40 per day         |

*Note: Some infrastructures may apply a reduced accommodation rate depending on local cost of living — confirmation should be sought from the assigned instrument scientist or the Ready-PV support team before travel.*

Reimbursement is **not** handled through READY-GATE. Instead, the reimbursement request and its processing are managed **internally by the host institution**, following that institution's own internal financial procedures. Users should contact their instrument scientist or local host-institution contact directly to arrange reimbursement, including any documentation the host institution requires (e.g., receipts, boarding passes, invoices).

**Virtual Access (VA)** does not involve travel and is therefore not eligible for reimbursement.

## 2.7 User Obligations

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This section summarizes the obligations that apply to all Ready-PV users once access has been granted, covering dissemination, data management, funding acknowledgment, and general conduct.

### 2.7.1 Dissemination of Results

As set out in Section 2.2.2, users are required to scientifically disseminate the results obtained through their Ready-PV access — for example through publications, conference contributions, or other public scientific outputs — except where an exemption applies (see Section 2.2.3, SME proprietary research).

This obligation is separate from the short administrative experimental report described in Section 2.6.1; dissemination refers specifically to the public communication of scientific results, in whatever form and timeframe is appropriate to the user's own research (e.g., after further analysis or write-up, not necessarily immediately after the access period).

Where possible, users are encouraged to:

- Publish results in **Open Access** journals
- Deposit publications and, where applicable, datasets in recognized repositories such as **Zenodo**, **arXiv**, or **NOMAD**

### 2.7.2 FAIR Data Management

Ready-PV is committed to Open Science and to making project-related data **FAIR** — Findable, Accessible, Interoperable, and Reusable.

Users are encouraged to manage and document data generated during their access using the platforms provided by Ready-PV, including:

- **NOMAD Oasis** — for structured collection, harmonization, and sharing of experimental and characterization data
- **ELN** (Electronic Lab Notebook) — for standardized documentation of experimental procedures
- **JupyterHub** — for interactive data analysis workflows

Data deposited through these platforms is, in the first instance, accessible only to the user; broader sharing follows the project's FAIR and Open Science principles. Training on the FAIR data platforms is available to all users (see Section 2.5.3).

### 2.7.3 Acknowledgment of Ready-PV / EU Funding

For users publishing results obtained through Ready-PV access (e.g., in peer-reviewed papers, conference presentations, or other public outputs), users are asked to acknowledge that the work was supported by Ready-PV and cite the project's Grant Agreement number:

***"This work was supported by the Ready-PV project, funded by the European Union under Grant Agreement No. 101293084."***

Users are encouraged to also mention the specific host infrastructure(s) used, in line with the acknowledgment practices of that infrastructure, where applicable.

### 2.7.4 Compliance and Conduct Rules

In addition to the obligations above, users are expected to:

- Comply with the host infrastructure's health, safety, and (where applicable) radiation-protection regulations (see Section 2.5.1)
- Provide accurate information throughout the application, access, and reporting process (see also Section 2.3.5)
- Disclose any conflict of interest relevant to the evaluation of their proposal (see Section 2.3.6)
- Use Ready-PV infrastructure and support solely for the purposes described in their approved proposal

## 2.8 Support, Contacts, and Resources

This section points to the people, tools, and reference materials (Annexes B–D) available to Ready-PV users.

Table 2.2 — Support channels and resources for Ready-PV users

| What you need                                                           | Where to go                                                                                          |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Help with account creation, login, or submission issues on READY-GATE   | <a href="#">READY-GATE Helpdesk</a>                                                                  |
| Guidance for a specific facility, instrument, or experimental plan      | The assigned instrument scientist — <a href="#">full contact list</a> (here also in <b>Annex C</b> ) |
| General questions about the Ready-PV project, not covered elsewhere     | <a href="#">Project coordination contact (HZB)</a>                                                   |
| Workshops and webinars on Ready-PV infrastructures                      | <a href="#">Ready-PV website</a>                                                                     |
| Overview of all 43 installations across the four infrastructure pillars | <a href="#">Infrastructure Catalogue</a>                                                             |
| Submitting a proposal                                                   | <a href="#">READY-GATE portal</a>                                                                    |
| Guidelines for Scientific Case and Experimental Plan                    | <a href="#">User guidelines on readyvp.eu</a> (here also in <b>Annex D</b> )                         |

### 3. Conclusions

This deliverable presents the **Ready-PV User Guidelines**, providing researchers and industry users with a single, comprehensive reference for accessing the project's 43 physical and virtual research installations across four infrastructure pillars, through Transnational Access (TA) and Virtual Access (VA).

The guidelines cover the full user journey — from eligibility and infrastructure selection, through proposal submission and evaluation via READY-GATE, to preparing for, carrying out, and reporting on access, as well as fulfilling user obligations including dissemination and FAIR-data requirements. Made publicly available on the Ready-PV website, they ensure clarity, transparency, and equal opportunity for all potential users.

The guidelines reflect the access scheme as of the date of publication and will be kept up to date as the project progresses, remaining the authoritative reference for Ready-PV users throughout the project's duration.

### 4. References

1. European Commission, Grant Agreement No. 101293084 — Ready-PV, HORIZON-INFRA-2025-01.
2. Ready-PV Deliverable D2.1 — *Ready-PV tools and procedures operationalized for launching access calls*. Link on project webpage: <https://www.readypv.eu/Dissemination-Download/Public%20Reports>
3. Ready-PV Deliverable D2.2 — *List of project internal and external reviewers for the user project proposals*. Link on project webpage: <https://www.readypv.eu/Dissemination-Download/Public%20Reports>
4. Ready-PV Deliverable D3.1 — *Training handbook on NOMAD Oasis, ELN, and JupyterHub tools* (forthcoming). Link on Link on project webpage: <https://www.readypv.eu/Dissemination-Download/Public%20Reports>
5. NOMAD / NOMAD Oasis: <https://nomad-lab.eu>

## 5. Annexes

### *Annex A — Full List of Consortium Partners*

| #  | Abbr.             | Full Name                                                                                | Country           |
|----|-------------------|------------------------------------------------------------------------------------------|-------------------|
| 1  | <b>HZB</b>        | Helmholtz-Zentrum Berlin für Materialien und Energie GmbH                                | DE Germany        |
| 2  | <b>AIT</b>        | AIT Austrian Institute of Technology GmbH                                                | AT Austria        |
| 3  | <b>ATAMOS</b>     | Corporación Atamos Tec                                                                   | CL Chile          |
| 4  | <b>CENER</b>      | Fundación CENER                                                                          | ES Spain          |
| 5  | <b>CSEM</b>       | CSEM Centre Suisse d'Electronique et de Microtechnique SA                                | CH Switzerland    |
| 6  | <b>ENEA</b>       | Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile | IT Italy          |
| 7  | <b>EPFL</b>       | École Polytechnique Fédérale de Lausanne                                                 | CH Switzerland    |
| 8  | <b>ESRF</b>       | European Synchrotron Radiation Facility                                                  | FR France         |
| 9  | <b>Fraunhofer</b> | Fraunhofer-Gesellschaft zur Förderung der Angewandten Forschung eV (CSP)                 | DE Germany        |
| 10 | <b>UBER</b>       | Humboldt-Universität zu Berlin                                                           | DE Germany        |
| 11 | <b>ILL</b>        | Institut Max von Laue – Paul Langevin                                                    | FR France         |
| 12 | <b>IMEC</b>       | Interuniversitair Micro-Electronica Centrum                                              | BE Belgium        |
| 13 | <b>IPVF</b>       | Institut Photovoltaïque d'Île de France                                                  | FR France         |
| 14 | <b>SU</b>         | Swansea University                                                                       | GB United Kingdom |
| 15 | <b>TNO</b>        | Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek                  | NL Netherlands    |
| 16 | <b>UCY</b>        | University of Cyprus                                                                     | CY Cyprus         |
| 17 | <b>UL</b>         | Univerza v Ljubljani                                                                     | SI Slovenia       |
| 18 | <b>UNITOV</b>     | Università degli Studi di Roma Tor Vergata                                               | IT Italy          |

## Annex B – Overview of Infrastructure Catalogue

| Ready-PV Installations for User Access     |                                |                                            |                           |                                              |
|--------------------------------------------|--------------------------------|--------------------------------------------|---------------------------|----------------------------------------------|
| Task 2.2. Advanced Fundament. Characteriz. |                                | Task 2.3. Indoor Stability and Reliability |                           | Task 2.4. Outdoor Performance and Durability |
| ESRF – BM05                                | CSP – Nano                     | AIT – Indoor Charact.                      | IMEC – Indoor             | Atamos-Outdoor Module                        |
| ESRF – ID01                                | HZB - EMIL                     | AIT – Indoor Climate Simulation            | IPVF – Degradation Indoor | CSP – Outdoor                                |
| ESRF – ID10                                | ILL – NeXT                     | AIT-Indoor Stabilization                   | SU – Encapsulation        | HZB – Outdoor Field                          |
| ESRF – ID31                                | ILL – D17                      | CENER – Indoor                             | SU – Indoor               | IMEC – Outdoor                               |
| Task 2.5. Virtual Infrastructures          |                                | CSEM – Module+Reliability                  | UCY – Indoor              | IPVF – Degradation Outdoor                   |
| AIT – AI evaluation                        | HZB – ML Tool                  | ENEA – Indoor                              | UL– Indoor Single         | SU – Outdoor                                 |
| CENER – Digital                            | TNO – Digital Twin             | EPFL – HITSTA                              | UL– Indoor Tandem         | TNO – Outdoor                                |
| ENEA - CRESCO                              | UCY – AI                       | CSP – Indoor                               | UNITOV – Indoor           | UCY – Outdoor                                |
| EPFL – OPTI                                | UNITOV – Multiscale Simulation | HZB – Indoor Ageing                        |                           | UL – Outdoor                                 |
| IPVF – Degradation+AI                      |                                |                                            |                           |                                              |

More details on <https://www.readypv.eu/catalogue/>

### Annex C — Infrastructure-Specific Contacts (Instrument Scientists)

| COUNTRY             | INSTITUTION    | INFRASTRUCTURE                       | ABBREVIATION IN GATE          | Contact person                      | Contact email                                                                                      |
|---------------------|----------------|--------------------------------------|-------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------|
| AT (Austria)        | AIT            | AIT Indoor PV Lab                    | AIT_Indoor Characterization   | Rita Ebner                          | <a href="mailto:rita.ebner@ait.ac.at">rita.ebner@ait.ac.at</a>                                     |
|                     |                |                                      | AIT_Indoor Climate Simulation |                                     |                                                                                                    |
|                     |                |                                      | AIT_Indoor Stabilization      |                                     |                                                                                                    |
|                     |                | AIT AI Tools                         | AIT_AI Evaluation             | Marcus Rennhofer                    | <a href="mailto:marcus.rennhofer@ait.ac.at">marcus.rennhofer@ait.ac.at</a>                         |
| BE (Belgium)        | IMEC           | Indoor Testing                       | IMEC_Indoor                   | Aranzazu Aguirre                    | <a href="mailto:aranzazu.aguirre@imec.be">aranzazu.aguirre@imec.be</a>                             |
|                     |                | Outdoor Testing                      | IMEC_Outdoor                  |                                     |                                                                                                    |
| CH (Switzerland)    | CSEM           | Modules & Reliability Testing        | CSEM_Module + Reliability     | Quentin Jeangros                    | <a href="mailto:quentin.jeangros@csem.ch">quentin.jeangros@csem.ch</a>                             |
|                     | EPFL           | PVLAB                                | EPFL_HITSTA                   | Christian Wolff                     | <a href="mailto:christian.wolff@epfl.ch">christian.wolff@epfl.ch</a>                               |
|                     |                |                                      | EPFL_OPTI                     |                                     |                                                                                                    |
| CL (Chile)          | Atamos         | PSDA                                 | ATAMOS_Outdoor Module         | Felipe Valencia                     | <a href="mailto:felipe.valencia@atamostec.cl">felipe.valencia@atamostec.cl</a>                     |
| CY (Cyprus)         | UCY            | UCY-PVlab                            | UCY_AI                        | Andrea Livera                       | <a href="mailto:livera.andreas@ucy.ac.cy">livera.andreas@ucy.ac.cy</a>                             |
|                     |                |                                      | UCY_Indoor                    | Elias Peraticos                     | <a href="mailto:peraticos.elias@ucy.ac.cy">peraticos.elias@ucy.ac.cy</a>                           |
|                     |                |                                      | UCY_Outdoor                   |                                     |                                                                                                    |
| DE (Germany)        | Fraunhofer CSP | Indoor Metrology                     | CSP_Indoor                    | Stefan Siecke-Lange                 | <a href="mailto:stefan.siecke-lange@imws.fraunhofer.de">stefan.siecke-lange@imws.fraunhofer.de</a> |
|                     |                | Microstructure and Nanoanalytics     | CSP_Nano                      |                                     |                                                                                                    |
|                     |                | Outdoor                              | CSP_Outdoor                   |                                     |                                                                                                    |
|                     | HZB            | EMIL lab                             | HZB_EMIL                      | Marcus Bär                          | <a href="mailto:marcus.baer@helmholtz-berlin.de">marcus.baer@helmholtz-berlin.de</a>               |
|                     |                | PVcomB                               | HZB_Indoor Ageing             | Stefan Janke                        | <a href="mailto:stefan.janke@helmholtz-berlin.de">stefan.janke@helmholtz-berlin.de</a>             |
|                     |                |                                      | HZB_Outdoor Field             |                                     |                                                                                                    |
| ES (Spain)          | CENER          | SIM + PVLAB                          | CENER_Digital                 | Eugenia Zugasti                     | <a href="mailto:ezugasti@cener.com">ezugasti@cener.com</a>                                         |
|                     |                | SOL + PVLAB                          | CENER_Indoor                  | Alicia Buceta                       | <a href="mailto:abuceta@cener.com">abuceta@cener.com</a>                                           |
|                     |                |                                      |                               |                                     |                                                                                                    |
| FR (France)         | ESRF           | BM05                                 | ESRF_BM05                     | T. N. Tran Caliste                  |                                                                                                    |
|                     |                | ID01                                 | ESRF_ID01                     | Tobias Schulli                      | <a href="mailto:schulli@esrf.fr">schulli@esrf.fr</a>                                               |
|                     |                | ID10                                 | ESRF_ID10                     | O. Konovalov                        |                                                                                                    |
|                     |                | ID31                                 | ESRF_ID31                     | Marta Mirolo                        | <a href="mailto:marta.mirolo@esrf.fr">marta.mirolo@esrf.fr</a>                                     |
|                     | ILL            | D17                                  | ILL_D17                       | Mark Johnson                        | <a href="mailto:johnson@ill.fr">johnson@ill.fr</a>                                                 |
|                     |                | NeXT                                 | ILL_NeXT                      |                                     |                                                                                                    |
|                     | IPVF           | Degradation Analysis coupled with AI | IPVF_Degradation + AI         | Jean Baptiste Puel                  | <a href="mailto:jean-baptiste.puel@edf.fr">jean-baptiste.puel@edf.fr</a>                           |
|                     |                | Degradation Measurements             | IPVF_Degradation Indoor       | Karim Medjoubi                      | <a href="mailto:karim.medjoubi@ipvf.fr">karim.medjoubi@ipvf.fr</a>                                 |
| IT (Italy)          | ENEA           | CRESCO-HPC                           | ENEA_CRESCO                   | Simone Giuseponni                   | <a href="mailto:simone.giuseponni@enea.it">simone.giuseponni@enea.it</a>                           |
|                     |                | ENEA-Indoor                          | ENEA_Indoor                   | Paula Delli Veneri                  | <a href="mailto:paola.delliveneri@enea.it">paola.delliveneri@enea.it</a>                           |
|                     | UNITOV         | CHOSE-Indoor                         | UNITOV_Indoor                 | Luigi Angelo Castriotta             | <a href="mailto:luigi.angelo.castriotta@uniroma2.it">luigi.angelo.castriotta@uniroma2.it</a>       |
|                     |                | CHOSE-Simulations                    | UNITOV_Multiscale Simulation  | Gemma Giliberti                     | <a href="mailto:gemma.giliberti@uniroma2.it">gemma.giliberti@uniroma2.it</a>                       |
|                     |                |                                      |                               |                                     |                                                                                                    |
| NL (Netherlands)    | TNO            | Digital Twin                         | TNO_Digital Twin              | Sjoerd Veenstra                     | <a href="mailto:sjoerd.veenstra@tno.nl">sjoerd.veenstra@tno.nl</a>                                 |
|                     |                | Outdoor Lab                          | TNO_Outdoor                   | Petra Manshanden                    | <a href="mailto:petra.manshanden@tno.nl">petra.manshanden@tno.nl</a>                               |
| SI (Slovenia)       | UL             | Indoor WLED                          | UL_Indoor Single              | Miha Kikelj                         | <a href="mailto:miha.kikelj@fe.uni-lj.si">miha.kikelj@fe.uni-lj.si</a>                             |
|                     |                | Indoor BCLED                         | UL_Indoor Tandem              | Marko Jost                          | <a href="mailto:marko.jost@fe.uni-lj.si">marko.jost@fe.uni-lj.si</a>                               |
|                     |                | Outdoor                              | UL_Outdoor                    | Spela Tomsic                        | <a href="mailto:spela.tomsic@fe.uni-lj.si">spela.tomsic@fe.uni-lj.si</a>                           |
| UK (United Kingdom) | SU             | Encapsulation                        | SU_Encapsulation              | Trystan Watson<br>Silvia Villarroya | <a href="mailto:t.m.watson@swansea.ac.uk">t.m.watson@swansea.ac.uk</a>                             |
|                     |                | Indoor testing                       | SU_Indoor                     |                                     | <a href="mailto:s.villarroya-lidon@swansea.ac.uk">s.villarroya-lidon@swansea.ac.uk</a>             |
|                     |                | Outdoor testing                      | SU_Outdoor                    |                                     |                                                                                                    |

Same list also here: <https://www.helmholtz-berlin.de/media/media/user/GATE/ready-pv/list-abbreviations-in-gate.pdf>

## ***Annex D — Guidelines for Scientific Case and Experimental Plan***

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### **Scientific case:**

The heart of your proposal is the science case. This must be written in English and be 1 page of A4 paper (minimum 12pt font). In the scientific part you should address the following topics:

#### **Scientific context:**

Give a clear account of the aims of the experiment and set it within the broader scientific context.

#### **Expected results:**

Give a short description of the results you expect.

#### **Publications:**

List the 3 most important publications in this field of science, in order to show that you are aware of the work of others.

#### **Choice of specific instrument/station:**

Give reasons for your choice of instrument. Justify why it is necessary to use this particular instrument.

#### **Preliminary work:**

If possible, give results of preliminary work carried out in conjunction with your proposed experiment and to demonstrate sample quality.

### ***Note***

*The detailed description of the experiment is dependent on the choice of instrument and will follow later, after the technical requirements.*

## **Experimental plan**

Give a detailed description of the experiment, including sample and parameter changes. You should justify the amount of time you asked for in the technical part.

### **List:**

the number of samples

the details of the samples (size, composition, substrate, handling requirements...)

the experiment conditions (range of parameters: thickness, wavelength, spectral, ...)

### **Specific things:**

Available material volume for solution processes

Estimate the time per one sample and calculation for the entire experiment

Need characterization tools? Describe the characterization "plan"

Estimate the experiment computing time for each sample, or sample condition, to show how you calculated the overall time requirements

For a complex series of experiments, please show how you reach your final time request. Also include any time needed for equipment setup and sample equilibration. Ask the instrument scientist/station manager for help if needed.

Example for time calculation:

Real simulation example with time estimation — 2 samples with 3 different thicknesses...

### ***Note:***

*If more instruments are planned, one experimental plan has to be uploaded for each technical part (i.e. each instrument that is asked for).*